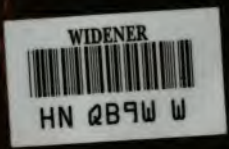

INVESTMENT STOCKS

INVESTMENTS:

WHAT AND WHEN TO BUY

W. R. LAMAR.

THE USE OF STATISTICS IN ACCUMULATING A FORTUNE

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PREFACE

This little book is prepared for two purposes, viz:

1. To show the possibilities and the limitations of Financial Statistics.

2. To give simple and practical examples of the use of such Statistics.

There are several books which enter into the theory and technique of Railroad Reports and other Statistical Data, but we know of no book which especially appeals to the bond salesman, the bank official and the investor. To such this short work is dedicated.

At the first reading it may seem complicated to some and extremely simple to others. All such, however, we sincerely trust will read it again, as it is neither complicated nor elementary. It should, moreover, be the means of aiding every reader in creating and retaining wealth.

DEDICATED TO

Our many good friends who are members of Stock Exchange Firms and of Bond Houses and who have helped us with encouragement, criticism and good will.

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FOREWORD

INVESTMENT STOCKS

WHAT TO BUY?

Buy only the most conservative dividend payers and those which are in the strongest financial condition. Such Stocks not only present the best security but also the greatest opportunity for profit.

WHEN TO BUY?

Buy in times of panic when banks are failing, industries are closing down and good stocks are selling at about one-half their previous high prices. Not only can a person then buy for one-half the money, but one will use saner judgment in selecting and purchasing.

For further particulars consult a Stock Exchange Firm or a Bond House having on file the complete Statistical Data, which together with the profitable uses thereof, we now proceed to herein describe.

CHAPTER I

The Theory of Statistics Affecting Investment Stocks

IS it possible for one to actually and surely make money by the use of Financial Statistics? Are Financial Statistics of actual value to a Stock Exchange House, a Bond Dealer or an Investor, or are they a luxury? When one hears that a Bond House, which is supposed to have an elaborate Statistical Department, has become "loaded" with unmarketable securities, one wonders whether such Statistical Departments are of any practical value or whether they are simply maintained for advertising or other sentimental reasons. The same question arises when one hears that all of the customers of some Stock Exchange House, which has been issuing elaborate booklets and charts, are on the wrong side of the market.

To conclude the matter, you say that if such statistics are of actual value in making money or in enabling customers

to be on the right side of the market, you will gladly pay for any service supplying such material; but, if not, you do not wish to have any more "Financial Statistics" about your home or office. In other words, if you can purchase data the use of which will show you a profit, you will not only pay for the same but you are anxious to have it. Unless, however, you are absolutely sure that such an investment will show you a profit, you do not wish to add to your present expenses. As this position is now assumed by the brightest brokers, bond dealers and investors, we herewith submit a short brief on the subject.

THE TWO CLASSES OF STATISTICS

Financial Statistics are divided into two classes; namely, COMPARATIVE STATISTICS and FUNDAMENTAL STATISTICS and we herewith give a very short description of these two classes:—

I. COMPARATIVE STATISTICS

This class relates to the Bonded Debt, the Earnings and the General Physical and Financial Conditions of properties. Such statistics are very necessary for comparing securities of different companies and the different securities of the

same company. If such data is always absolutely up-to-date such Comparative Statistics are very valuable for enabling one to select the best of several securities, either for the purpose of buying or selling. As most of the largest and most successful Stock Exchange Firms and Bond Houses are already well supplied with such Comparative Statistics and, so far as they are useful, are obtaining excellent results, we will not here enter into details concerning this class. We wish it clearly understood however that such statistics are absolutely valueless for determining the course of the entire or general market. Comparative Statistics determine only investment values, enabling one to select a safe stock or bond, or to select the better of two or more stocks or bonds. With the general market conditions remaining fixed, Comparative Statistics may be used for forecasting the rise or decline of a given stock; but the general market so seldom remains fixed, that such a use cannot be depended upon. It is this fact that has brought Comparative Statistics into ill-repute.

The market value of a stock may continually decline, as the actual value of the stock increases, or vice versa. A

Stock Exchange Firm, a Bond House or an Investor who bases either purchases or sales WITH THE IDEA OF SELLING AT A PROFIT upon earnings, physical conditions or other Comparative Statistics, will surely lose money. Note that we say "with the idea of selling at a profit," for such statistics may be used for selecting a safe investment which one desires to hold permanently or for a "long pull;" but they are absolutely valueless for "short turns." It is because this fact is not being recognized by many firms who are content with accumulating only such statistics that, even with their elaborate Statistical Departments, they are often on the losing side.

II. FUNDAMENTAL STATISTICS

These relate to underlying conditions of the country and come under what is known as Class 2. The Fundamental Statistics, although now used by only a few of the best Banking and Mercantile Houses, are by far the most necessary and profitable. All financial history consists of distinct 'cycles, averaging from fifteen to twenty years in duration, and each cycle has consisted of four distinct periods: namely,

1. A period of Prosperity.

2. A transitory period from Prosperity to Depression.

3. A period of Depression.

4. A transitory period from Depression to Prosperity.

Moreover, the laws of nature, commerce and industry make absolutely necessary that these cycles continue to come and that each cycle must always consist of four distinct periods. The idea that prosperity can ever remain permanent and will not be followed by a business depression, or the idea that a depression will be permanent and will not be followed by general activity and high market prices, shows both ignorance of economics and utter inexperience of financial affairs.

A list of twenty-five subjects relative to which statisticians and investors systematically collect, analyze and index statistics is given in chapter 5. These are the subjects studied by the oldest, most conservative and richest Financial and Mercantile Houses of the world for determining which of the above mentioned periods AT ANY GIVEN TIME the country is experiencing or is about to enter. A Statistician needs to make no predictions whatever but perform simply the mechanical work of

collecting and distributing the material which he or customers use for determining whether the general tendency of the market is upward or downward and whether said customers should buy or sell. As above stated, these Fundamental Statistics are even more important than Comparative Statistics, as the latter are of little value unless supplemented by these Fundamental Statistics. In addition, the experience has universally been, that such firms and individuals as confine their operations to standard stocks and bonds have made fortunes for themselves and their customers by simply a study of these Fundamental Statistics.

CONCLUSION

The amount of money which can be made by the study of such statistics is limited only to the original capital invested and the number of years the service is continued. The Comparative Statistics are used for selecting securities which are absolutely safe and which have the greatest prospect of increase in market value under fixed market conditions. The Fundamental Statistics are employed for determining these general market conditions and as

to whether or not it is wise to purchase or to sell said securities. Investors use this data in order to purchase securities only when they are low, holding them for from four to six years until they are high and then selling and depositing in a bank the proceeds received therefrom. After said sale they leave the money on deposit for from four to six years, until the same securities again sell low, when they again purchase them or other securities of the highest grade.

Many such investors triple their money about every five years, with very little risk and with little trouble. By following such a method, some individuals have, WITH EQUALLY LITTLE RISK AND WITHOUT ANY MARGIN-PURCHASES, through only outright purchases of the highest grade, dividend paying stocks, turned an investment of $5,000 into $100,000 in about twenty years or an investment of $35,000 into $1,000,000 in about thirty years. If such a person is not strictly an investor, but is willing under a broker's guidance to also take advantage of the intermediate movements, which come possibly once or twice a year, much greater results are sometimes obtained.

Many brokers urge customers to go

a step further and recommend "short-selling" in periods of great activity and prosperity and also the purchase of securities on margin during periods of depression. It is natural for brokers to recommend this to their customers, but with any short-selling or margin-purchases, there is connected a certain element of risk, and the investor then becomes a speculator. Moreover the point which we desire to emphasize is: THAT AN INVESTMENT OF A FEW THOUSAND DOLLARS CAN BE MULTIPLIED TO AN INVESTMENT OF SEVERAL HUNDRED THOUSAND DOLLARS IN ABOUT TWENTY YEARS WITH VERY LITTLE RISK WHATSOEVER or without short-selling or margin purchases whatever. The only requisite is a constant study of Comparative and Fundamental Statistics and self-control to act in accordance with what these statistics clearly indicate, refusing to listen to the optimism or pessimism supplied by the daily papers and by the many individuals who are willing to give you free advice.

The above principles apply to bonds as truly as to stocks and should be studied by the investors who purchase

only bonds as well as by investors who purchase stocks.

Although bonds do not fluctuate so widely as stocks (and for this reason do not apparently present so great an opportunity for profit), yet their minimum interest yield is absolutely fixed which is not true even with the most conservative stocks.

We especially recommend bonds to persons dependent on the income received from their investments and we are inclined to recommend that all persons should have a portion of their principal either on deposit in a bank or else in high grade bonds.

This is advisable owing among other reasons to the fact that, if it becomes necessary to sell securities in order to obtain cash during a period of depression, a person may sell bonds with less loss than stocks. However, persons who follow the theory emphasized in this book should have their principal at such times wholly in cash instead of in either stocks or bonds.

CHAPTER II

Range of the Leading Investment Stocks since 1860

THE accompanying chart is designed to show the Fluctuations in the leading Investment Stocks from 1860 to date in as fair a manner as possible. Only the best Stocks of the period are considered and the Stocks are AS REPRESENTATIVE AS POSSIBLE of the different classes of traffic and of the different sections of the country.

"Central of New Jersey" is a Minority Stock, "St. Paul" is a Speculative Stock and "Delaware & Hudson" is a Coal Stock. The West is represented by "Great Northern," the Mississippi Valley by "Illinois Central," the South by "Louisville & Nashville" and the Central and Middle States by "New York Central" and "Pennsylvania." The New England States are represented by "New York, New Haven & Hartford," and "Pullman" is chosen as the most conservative Industrial.

In 1860 "New York Central," "Illinois Central" and "Delaware, Lackawanna & Western" were the only three stocks

then in existence, and actively traded in, which are likewise prominent today. In 1866 "Delaware & Hudson" and "Chicago, Milwaukee & St. Paul" are added and in 1872 "Louisville & Nashville" becomes active and in 1874 "Central of New Jersey." In 1876 "Pullman" becomes active and in 1889 "Pennsylvania" is added. These ten stocks are used exclusively until 1900 when "Delaware, Lackawanna & Western" is omitted as this stock soon after has an abnormal rise which if considered would cause the diagram to show a point that would be too high for a representative list. As "Great Northern" sold for the same price, namely 191½ at about that time, this is substituted in its stead.

In other words, not only good Stocks have been considered but also only truly representative Stocks for the period considered. Stocks which have shown any abnormal rise or decline have purposely been avoided. For this reason, Stocks such as "Union Pacific," "Atchison" and "Reading" have been omitted. More Industrials would have been included if they had been in existence a longer period but, as most of the companies have been organized only ten or fifteen years, this was not possible.

Therefore, the diagram may be depended upon absolutely as showing the fluctuations which a conservative investor may expect.

It has also been very interesting to figure the income received upon the investment, which has varied from 5% to 10%. If all rights were considered, it often would show more than 10%, but in this also any possible exaggeration has been avoided. For this reason, since "Great Northern" gave its Ore Certificates the price of these Certificates has been included with the price of the Stock. The complete list as it stood on October 24th, 1907 was as follows:—

	Div.	Price
Central of New Jersey*	$8	158
Chicago, Mil. & St. Paul* ...	7	100
Delaware & Hudson	9	128
Gt. Northern plus one Ore Cert.	7+	155
Ill. Central	7	121
Louisville & Nashville	6	94
New York Central	6	96
N. Y., N. H. & Hartford	8	136
Penn.	7	114
Pullman	8	135

*The chart includes "Central of New Jersey" and "Chicago, Milwaukee & St.

Paul." in order to tabulate a Minority Stock and a Speculative Stock. As an investment, however, other Stocks may be preferable. When substituting other Stocks some brokers recommend that one select Stocks selling for about the same prices as those omitted. Always remember that an investor when buying or selling should not study the present prices of the exact ten stocks which he purchases but rather study the prices of the above ten assorted and representative Stocks. This is because he should buy or sell IN ACCORDANCE WITH GENERAL CONDITIONS and not in accordance with the price of the ten or more Stocks which he happens to hold. A diagram of any other ten Stocks may be misleading and may cause trouble.

The low and high prices of the above ten stocks from 1860 to date are given in the accompanying tables:

1860 AVERAGE 59-93

Lackawanna ranged from 54 (Jan.) to 99 (June); Ill. Cent. 55 (Jan.) to 89 (Aug.); N. Y. Cent. 92 (Sept.) to 69 (Dec.).

1861 AVERAGE 62-84

Lackawanna ranged from 84 (Mch.) to 65 (Dec.); Ill. Cent. 88 (Jan.) to 55

(April); N. Y. Cent. 82 (Jan.) to 68 (April).

1862 AVERAGE 71-107

Lackawanna ranged from 80 (April) to 130 (Dec.); Ill. Cent. 55 (July) to 84 (Oct.); N. Y. Cent. 79 (Jan.) to 107 (Oct.).

1863 AVERAGE 106-153

Lackawanna ranged from 130 (Jan.) to 198 (Dec.); Ill. Cent. 83 (Jan.) to 126 (Aug.); N. Y. Cent. 107 (Mch.) to 140 (Sept.).

1864 AVERAGE 138-148

Lackawanna ranged from 195 (Jan.) to 265 (Sept.); Ill. Cent. 110 (Mch.) to 135 (Oct.); N. Y. Cent. 145 (Mch.) to 109 (Oct.).

1865 AVERAGE 125-158

Lackawanna ranged from 225 (Jan.) to 199 (Mch.); Ill. Cent. 92 (Mch.) to 130 (July); N. Y. Cent. 119 (Jan.) to 85 (April).

1866 AVERAGE 99-128

St. Paul ranged from 41 (Mch.) to 64 (Nov.); Del. & Hud. 132 (Mch.) to 160 (Nov.); Lackawanna 162 (Jan.) to 127 (Feb.); Ill. Cent. 131 (Jan.) to 112 (Feb.); N. Y. Cent. 86 (Feb.) to 123 (Nov.).

1867 AVERAGE 98-122

Cent. of N. J. ranged from 125 (Jan.)

to 113 (Dec.); St. Paul 25 (April) to 54 (July); Del. & Hud. 139 (Jan.) to 156 (Jan.); Lackawanna 130 (July) to 109 (Oct.); Ill. Cent. 111 (Jan.) to 135 (Dec.); N. Y. Cent. 94 (Feb.) to 118 (Dec.); New Haven 114 (Jan.) to 140 (Dec.).

1868 AVERAGE 108-147

Cent. of N. J. ranged from 126 (June) to 110 (Dec.); St. Paul 46 (Feb.) to 111 (Oct.); Del. & Hud. 165 (May) to 119 (Aug.); Lackawanna 110 (Jan.) to 132 (Oct.); Ill. Cent. 130 (Jan.) to 159 (July); N. Y. Cent. 110 (April) to 159 (Dec.); New Haven 133 (Jan.) to 159 (May).

1869 AVERAGE 114-160

St. Paul ranged from 84 (Aug.) to 61 (Sept.); Del. & Hud. 134 (June) to 120 (Dec.); Lackawanna 120 (Jan.) to 104 (Nov.); Ill. Cent. 148 (May) to 130 (Dec.); N. Y. Cent. 217 (July) to 153 (Sept.); New Haven 160 (Jan.) to 120 (April).

1870 AVERAGE 102-120

St. Paul ranged from 75 (Jan.) to 52 (Dec.); Del. & Hud. 115 (Mar.) to 127 (July); Lackawanna 112 (May) to 100 (Sept.); Ill. Cent 145 (Feb.) to 129 (July); N. Y. Cent. 86 (Jan.) to 102

(June); New Haven 134 (Jan.) to 159 (June).

1871 AVERAGE 103-117

St. Paul ranged from 48 (Jan.) to 64 (Sept.); Del. & Hud. 115 (Feb.) to 125 (Dec.); Lackawanna 102 (Feb.) to 111 (Sept.); Ill. Cent. 139 (Jan.) to 132 (Oct.); N. Y. Cent. 103 (April) to 84 (Oct.); New Haven 140 (April) to 160 (June).

1872 AVERAGE 97-110

St. Paul ranged from 64 (April) to 51 (Nov.); Del. & Hud. 124 (Jan.) to 115 (Oct.); Lackawanna 112 (Mar.) to 91 (Dec.); Ill. Cent. 140 (June) to 119 (Nov.); Louis. & Nash. 81 (Oct.) to 79 (Dec.); N. Y. Cent. 101 (April) to 89 (Nov.); New Haven 148 (June) to 138 (Dec.).

1873 AVERAGE 75-106

St. Paul ranged from 62 (April) to 21 (Nov.); Del. & Hud. 124 (Feb.) to 99 (Nov.); Lackawanna 106 (June) to 79 (Nov.); Ill. Cent. 126 (Jan.) to 90 (Nov.); Louis. & Nash. 79 (Mch.) to 50 (Dec.); N. Y. Cent. 106 (Feb.) to 77 (Nov.); New Haven 142 (Feb.) to 112 (Nov.).

1874 AVERAGE 87-99

Cent. of N. J. ranged from 98 (Jan.) to 109 (Feb.); St. Paul 41 (Jan.) to 31

(May); Del. & Hud. 121 (Jan.) to 113 (Aug.); Lackawanna 99 (Jan.) to 112 (Feb.); Ill. Cent. 108 (Feb.) to 90 (Oct.); Louis. & Nash. 53 (Jan.) to 59 (Feb.); N. Y. Cent. 105 (Mch.) to 95 (May); New Haven 122 (Jan.) to 139 (Nov.).

1875 AVERAGE 87-100

Cent. of N. J. ranged from 120 (April) to 99 (Oct.); St. Paul 40 (April) to 28 (June): Del. & Hud. 110 (Feb.) to 124 (Dec.); Lackawanna 106 (Jan.) to 123 (April); Ill. Cent. 106 (April) to 88 (Oct.); Louis. & Nash. 40 (Feb.) to 36 (April); N. Y. Cent. 100 (May) to 107 (May); New Haven 133 (Jan.) to 147 (Dec.).

1876 AVERAGE 62-100

Cent. of N. J. ranged from 109 (Feb.) to 21 (Sept.); St. Paul 46 (Feb.); to 18 (Nov.) Del. & Hud. 125 (Jan.) to 61 (Oct.); Lackawanna 120 (Jan.) to 64 (Oct.); Ill. Cent. 103 (Mch.) to 60 (Dec.); Louis. & Nash. 32 (April) to 24 (Dec.); N. Y. Cent. 117 (Feb.) to 96 (Sept.); New Haven 146 (Jan.) to 159 (Mch.); Pullman 70 (Jan.) to 85 (April).

1877 AVERAGE 48-76

Cent. of N. J. ranged from 37 (Jan.) to 6 (June); St. Paul 11 (April) to 42

(Oct.); Del. & Hud. 74 (Jan.) to 25 (June); Lackawanna 77 (Jan.) to 30 (June); Ill. Cent. 40 (April) to 79 (Oct.); Louis. & Nash. 26 (Mch.) to 40 (Dec.); N. Y. Cent. 85 (April) to 109 (Oct.); New Haven 146 (April) to 158 (Dec.); Pullman 75 (Feb.) to 71 (Mch.).

1878 AVERAGE 61-76

Cent. of N. J. ranged from 13 (Jan.) to 45 (July); St. Paul 54 (June) to 27 (Sept.); Del. & Hud. 59 (July) to 34 (Dec.); Lackawanna 61 (July) to 41 (Dec.); Ill. Cent. 72 (Feb.) to 85 (June); Louis. & Nash. 35 (Oct.) to 39 (Dec.); N. Y. Cent. 103 (Mch.) to 115 (Sept.); New Haven 153 (Jan.) to 162 (Nov.); Pullman 72 (Feb.) to 80 (July).

1879 AVERAGE 66-106

Cent. of N. J. ranged from 33 (Jan.) to 89 (Nov.); St. Paul 34 (Jan.) to 82 (Nov.); Del. & Hud. 38 (Feb.) to 89 (Nov.); Lackawanna 43 (Jan.) to 94 (Nov.); Ill. Cent. 79 (Mch.) to 100 (Dec.); Louis. & Nash. 35 (Feb.) to 89 (Dec.); N. Y. Cent. 112 (Mch.) to 133 (Oct.); New Haven 171 (June) to 154 (Nov.); Pullman 73 (Jan.) to 109 (Nov.).

1880 AVERAGE 87-131

Cent. of N. J. ranged from 85 (April) to 45 (May); St. Paul 66 (May) to 114 (Dec.); Del. & Hud. 60 (May) to 92 (Dec.); Lackawanna 68 (May) to 110 (Dec.); Ill. Cent. 99 (Jan.) to 127 (Dec.); Louis. & Nash. 173 (Nov.) to 77 (Dec.); N. Y. Cent. 122 (May) to 155 (Dec.); New Haven 155 (Jan.) to 180 (Oct.); Pullman 107 (Jan.) to 146 (Jan.).

1881 AVERAGE 110-137

Cent. of N. J. ranged from 82 (Jan.) to 112 (Feb.); St. Paul 101 (Feb.) to 129 (June); Del. & Hud. 89 (Jan.) to 115 (Mch.); Lackawanna 101 (Jan.) to 131 (Mch.); Ill. Cent. 124 (Jan.) to 146 (May); Louis. & Nash. 79 (Feb.) to 110 (May); N. Y. Cent. 155 (Jan.) to 130 (Dec.); New Haven 164 (Mch.) to 190 (June); Pullman 120 (Jan.) to 150 (Jan.).

1882 AVERAGE 94-134

Cent. of N. J. ranged from 93 (Feb.) to 63 (Nov.); St. Paul 128 (Sept.) to 96 (Nov.); Del. & Hud. 102 (Mch.) to 119 (Aug.); Lackawanna 116 (April) to 150 (Sept.); Ill. Cent. 127 (Jan.) to 150 (Oct.); Louis. & Nash. 100 (Jan.) to 46 (Nov.); N. Y. Cent. 123 (May) to 138 (Aug.); New Haven 168 (Feb.) to 186

(Feb.); Pullman 145 (Jan.) to 117 (June).

1883 AVERAGE 103-121

Cent. of N. J. ranged from 68 (Jan.) to 90 (Oct.); St. Paul 108 (Jan.) to 91 (Dec.); Del. & Hud. 112 (April) to 102 (Oct.); Lackawanna 131 (April) to 111 (Oct.); Ill. Cent. 148 (June) to 124 (Aug.); Louis. & Nash. 58 (Jan.) to 40 (Aug.); N. Y. Cent. 129 (Mch.) to 111 (Dec.); New Haven 169 (Jan.) to 183 (June); Pullman 134 (June) to 112 (Dec.).

1884 AVERAGE 80-115

Cent. of N. J. ranged from 90 (Jan.) to 37 (Dec.); St. Paul 94 (Jan.) to 58 (June); Del. & Hud. 114 (Feb.) to 67 (Dec.); Lackawanna 133 (Mch.) to 86 (Dec.); N. Y. Cent. 140 (Feb.) to 110 (June); Louis. & Nash. 51 (Mch.) to 22 (June); N. Y. Cent. 122 (Mch.) to 83 (Nov.); New Haven 184 (May) to 175 (July); Pullman 117 (Jan.) to 90 (May).

1885 AVERAGE 83-113

Cent. of N. J. ranged from 31 (Mch.) to 52 (Aug.); St. Paul 64 (June) to 99 (Nov.); Del. & Hud. 66 (Jan.) to 100 (Nov.); Lackawanna 82 (Jan.) to 129 (Dec.); Ill. Cent. 119 (Jan.) to 140 (Dec.); Louis. & Nash. 22 (Jan.) to 51

(Nov.); N. Y. Cent. 81 (June) to 107 (Nov.); New Haven 175 (Jan.) to 204 (Dec.); Pullman 107 (Jan.) to 137 (Nov.).

1886 AVERAGE 102-123

Cent. of N. J. ranged from 42 (Jan.) to 64 (Sept.); St. Paul 82 (May) to 99 (Sept.); Del. & Hud. 87 (Jan.) to 108 (Feb.); Lackawanna 115 (Jan.) to 144 (Dec.); Ill. Cent. 143 (Feb.) to 130 (Dec.); Louis. & Nash. 33 (May) to 69 (Dec.); N. Y. Cent. 98 (Mch.) to 117 (Oct.); New Haven 204 (Jan.) to 223 (Nov.); Pullman 128 (May) to 147 (Oct.).

1887 AVERAGE 104-124

Cent. of N. J. ranged from 64 (May) to 47 (July); St. Paul 95 (May) to 65 (Oct.); Del. & Hud. 96 (Sept.) to 106 (Nov.); Lackawanna 139 (June) to 123 (Oct.); Ill. Cent. 138 (May) to 114 (Oct.); Louis. & Nash. 70 (April) to 54 (Oct.); N. Y. Cent. 114 (May) to 101 (Oct.); New Haven 208 (Feb.) to 233 (May); Pullman 159 (May) to 136 (Nov.).

1888 AVERAGE 102-129

Cent. of N. J. ranged from 73 (April) to 95 (Dec.); St. Paul 78 (Feb.) to 59 (Dec.); Del. & Hud. 103 (Jan.) to 134 (Dec.); Lackawanna 123 (April) to 145

(Oct.); Ill. Cent. 123 (Aug.) to 113 (Dec.); Louis. & Nash. 64 (Jan.) to 50 (April); N. Y. Cent. 102 (April) to 111 (Sept.); New Haven 215 (Jan.) to 244 (Dec.); Pullman 135 (April) to 175 (Sept.).

1889 AVERAGE 123-144

Cent. of N. J. ranged from 92 (Mch.) to 131 (Oct.); St. Paul 60 (Mch.) to 75 (June): Del. & Hud. 130 (Mch.) to 156 (Sept.); Lackawanna 134 (April) to 151 (Sept.); Ill. Cent. 106 (Feb.) to 118 (Dec.); Louis. & Nash. 56 (Jan.) to 87 (Nov.); N. Y. Cent. 110 (Feb.) to 104 (July): New Haven 241 (Jan.) to 279 (Sept.); Pullman 189 (Jan.) to 193 (Jan.).

1890 AVERAGE 98-141

Cent. of N. J. ranged from 128 (May) to 92 (Nov.); St. Paul 78 (May) to 44 (Nov.); Del. & Hud. 140 (April) to 120 (Dec.); Lackawanna 149 (July) to 123 (Nov.); Ill. Cent. 120 (Jan.) to 85 (Nov.); Louis. & Nash. 92 (May) to 65 (Nov.); N. Y. Cent. 111 (June) to 95 (Dec.); New Haven 224 (Jan.) to 270 (June); Pennsylvania 95 to 113; Pullman 222 (July) to 160 (Dec.).

1891 AVERAGE 95-138

Cent. of N. J. ranged from 122 (April)

to 105 (June); St. Paul 51 (Mch.) to 82 (Dec.); Del. & Hud. 140 (Sept.) to 120 (Dec.); Lackawanna 130 (July) to 145 (Sept.); Ill. Cent. 90 (Mch.) to 109 (Dec.); Louis. & Nash. 65 (Aug.) to 83 (Dec.); N. Y. Cent. 98 (July) to 119 (Dec.); New Haven 271 (Feb.) to 24 (Nov.); Pennsylvania 99 to 115; Pullman 196 (Jan.) to 172 (Nov.).

1892 AVERAGE 122-142

Cent. of N. J. ranged from 111 (Jan.) to 145 (Feb.); St. Paul 75 (April) to 84 (Aug.); Del. & Hud. 122 (Jan.) to 149 (April); Lackawanna 138 (Jan.) to 167 (Feb.); Ill. Cent. 110 (Jan.) to 95 (Sept.); Louis. & Nash. 84 (Jan.) to 64 (Sept.); N. Y. Cent. 119 (Mch.) to 107 (Sept.); New Haven 224 (Jan.) to 252 (June); Pennsylvania 106 to 114; Pullman 184 (Jan.) to 200 (May).

1893 AVERAGE 98-130

Cent. of N. J. 132 (Jan.) to 84 (July): St. Paul 83 (Jan.) to 46 (July); Del. & Hud. 139 (Jan.) to 102 (July); Lackawanna 127 (July) to 175 (Nov.); Ill. Cent. 104 (Jan.) to 86 (July); Louis. & Nash. 77 (Jan.) to 39 (Dec.); N. Y. Cent. 111 (Jan.) to 92 (July); New Haven 262 (Jan.) to 188 (Sept.); Penn-

sylvania 93 to 111; Pullman 206 (April) to 132 (Aug.).

1894 AVERAGE 105-123

Cent. of N. J. ranged from 117 (Mch.) to 87 (Dec.); St. Paul 54 (Jan.) to 67 (Sept.); Del. & Hud. 144 (April) to 119 (Oct.); Lackawanna 174 (Sept.) to 155 (Oct.); Ill. Cent. 95 (Sept.) to 82 (Dec.); Louis. & Nash. 40 (Jan.) to 57 (Sept.); N. Y. Cent. 95 (May) to 102 (Aug.); New Haven 178 (July) to 197 (Dec.); Pennsylvania 96 to 104; Pullman 174 (April) to 152 (July).

1895 AVERAGE 103-128

Cent. of N. J. ranged from 81 (Feb.) to 116 (Sept.); St. Paul 53 (Mch.) to 78 (Sept.); Del. & Hud. 134 (Sept.) to 118 (Dec.); Lackawanna 174 (Oct.) to 154 (Dec.); Ill. Cent. 81 (Jan.) to 106 (Sept.); Louis. & Nash. 66 (Sept.) to 39 (Dec.); N. Y. Cent. 104 (Aug.) to 90 (Dec.); New Haven 218 (June) to 174 (Dec.); Pennsylvania 97 to 115; Pullman 178 (June) to 146 (Dec.).

1896 AVERAGE 100-119

Cent. of N. J. ranged from 87 (Aug.) to 110 (Nov.); St. Paul 59 (Aug.) to 80 (Nov.); Del. & Hud. 129 (Feb.) to 114

(Aug.); Lackawanna 166 (June) to 138 (Aug.); Ill. Cent. 98 (Jan.) to 84 (Aug.); Louis. & Nash. 55 (Feb.) to 37 (Aug.); N. Y. Cent. 99 (Feb.) to 88 (Aug.); New Haven 184 (Jan.) to 160 (July); Pennsylvania 99 to 109; Pullman 164 (Feb.) to 138 (Aug.).

1897 AVERAGE 103-117

Cent. of N. J. ranged from 103 (Jan.) to 68 (May); St. Paul 69 (April) to 102 (Sept.); Louis. & Nash. 99 (April) to 123 (Sept.); Lackawanna 164 (May) to 164 (Aug.); Ill. Cent. 91 (April) to 110 (Aug.); Louis. & Nash. 40 (April) to 63 (Sept.); N. Y. Cent. 92 (Feb.) to 115 (Sept.); New Haven 160 (Feb.) to 185 (Sept.); Pennsylvania 103 (Jan.) to 119 (Sept.); Pullman 152 (Jan.) to 185 (Sept.).

1898 AVERAGE 106-133

Cent. of N. J. ranged from 84 (Nov.) to 99 (Dec.); St. Paul 83 (April) to 120 (Dec.); Del. & Hud. 114 (Feb.) to 93 (Nov.); Lackawanna 159 (Feb.) to 140 (Oct.); Ill. Cent. 96 (April) to 115 (Dec.); Louis. & Nash. 44 (April) to 65 (Dec.); N. Y. Cent. 105 (Mch.) to 124 (Dec.); New Haven 178 (Jan.) to 201 (Dec.); Pennsylvania 110 (Mch.) to 123 (Dec.); Pullman 216 (July) to 132 (Nov.).

1899 AVERAGE 123-151

Cent. of N. J. ranged from 97 (Jan.) to 126 (Nov.); St. Paul 136 (Sept.) to 112 (Dec.); Del. & Hud. 106 (Jan.) to 135 (Sept.); Lackawanna 157 (Jan.) to 194 (Oct.); Ill. Cent. 122 (Jan.) to 105 (Dec.); Louis. & Nash. 63 (Mch.) to 88 (Oct.); N. Y. Cent. 144 (Mch.) to 120 (Dec.); New Haven 198 (Jan.) to 222 (April); Pennsylvania 122 (Jan.) to 142 (Jan.); Pullman 156 (Jan.) to 207 (Oct.).

1900 AVERAGE 134-165

Cent. of N. J. ranged from 115 (Jan.) to 150 (Dec.); St. Paul 108 (June) to 148 (Dec.); Del. & Hud. 106 (Sept.) to 134 (Dec.); *Gt. Northern 211 (June) to 276 (Dec.); Ill. Cent. 110 (June) to 132 (Dec.); Louis. & Nash. 68 (Sept.) to 89 (Dec.); N. Y. Cent. 125 (June) to 145 (Dec.); New Haven 215 (Jan.) to 207 (Sept.); Pennsylvania 124 (Sept.) to 149 (Dec.); Pullman 176 (June) to 204 (Dec.).

*Great Northern is substituted here for Lackawanna with the Ore Certificates added from 1900 to 1907.

1901 AVERAGE 148-190

Cent. of N. J. 145 (Jan.) to 196 (Dec.); St. Paul 134 (May) to 188

(May); Del. & Hud. 185 (April) to 105 (May); Gt. Northern 208 (Mch.) to 167 (May); Ill. Cent. 124 (May) to 154 (June); Louis. & Nash. 76 (May) to 111 (June); N. Y. Cent. 129 (Jan.) to 174 (Nov.); New Haven 206 (Feb.) to 217 (June); Pennsylvania 161 (April) to 137 (May); Pullman 195 (Jan.) to 225 (Oct.).

1902 AVERAGE 168-201

Cent. of N. J. ranged from 198 (Jan.) to 165 (Nov.); St. Paul 160 (Jan.) to 198 (Sept.); Del. & Hud. 184 (Jan.) to 153 (Nov.); Gt. Northern 181 (Mch.) to 203 (Dec.); Ill Cent. 137 (Jan.) to 173 (Aug.); Louis. & Nash. 102 (Jan.) to 159 (Aug.); N. Y. Cent. 168 (Jan.) to 147 (Nov.); New Haven 209 (Jan.) to 225 (April); Pennsylvania 147 (Jan.) to 170 (Sept.); Pullman 215 (Jan.) to 250 (April).

1903 AVERAGE 149-190

Cent. of N. J. ranged from 190 (Jan.) to 153 (Oct.); St. Paul 183 (Jan.) to 133 (Aug.); Del. & Hud. 183 (Feb.) to 149 (Aug.); Gt. Northern 209 (Jan.) to 160 (Oct.); Ill. Cent. 151 (Jan.) to 125 (July); Louis. & Nash. 130 (Jan.) to 95 (Sept.); N. Y. Cent. 156 (Jan.) to 112 (July); New Haven 225 (Jan.) to 187 (May); Pennsylvania 157 (Jan.) to 110

(Nov.); Pullman 235 (Jan.) to 196 (July).

1904 AVERAGE 152-192

Cent. of N. J. ranged from 154 (Feb.) to 194 (Nov.); St. Paul 137 (Feb.) to 177 (Dec.); Del. & Hud. 149 (Mch.) to 190 (Dec.); Gt. Northern 170 (Mch.) to 242 (Dec.); Ill. Cent. 125 (Feb.) to 159 (Dec.); Louis. & Nash. 101 (Feb.) to 148 (Dec.); N. Y. Cent. 112 (Mch.) to 145 (Dec.); New Haven 185 (May) to 199 (Oct.); Pennsylvania 111 (Mch.) to 140 (Dec.); Pullman 209 (Mch.) to 242 (Nov.).

1905 AVERAGE 181-220

Cent. of N. J. ranged from 190 (May) to 235 (Oct.); St. Paul 168 (May) to 187 (Aug.); Del. & Hud. 178 (May) to 237 (Nov.); Gt. Northern 236 (Jan.) to 335 (April); Ill. Cent. 152 (Jan.) to 183 (Sept.); Louis. & Nash. 134 (Jan.) to 157 (Sept.); N. Y. Cent. 167 (Mch.) to 136 (May); New Haven 216 (Sept.) to 191 (Dec.); Pennsylvania 131 (May) to 148 (Aug.); Pullman 230 (May) to 258 (Aug.).

1906 AVERAGE 163-210

Cent. of N. J. ranged from 204 (May) to 239 (May); St. Paul 189 (Nov.) to 146 (Dec.); Del. & Hud. 209 (Mch.) to 189 (May); Gt. Northern 348 (Feb.) to

178 (Dec.); Ill. Cent. 164 (May) to 184 (June); Louis. & Nash. 156 (Jan.) to 136 (May); N. Y. Cent. 156 (Jan.) to 126 (Nov.); New Haven 204 (Jan.) to 189 (Dec.); Pennsylvania 147 (Jan.) to 122 (July); Pullman 270 (Nov.) to 180 (Dec.).

1907 TO NOVEMBER 1, AVERAGE 125-183

Cent. of N. J. ranged from 219 (Jan.) to 160 (Oct.); St. Paul 157 (Jan.) to 100 (Oct.); Del. & Hud. 227 (Jan.) to 126 (Oct.); Gt. Northern 274 (Jan.) to 178 (Oct.); Ill. Cent. 172 (Jan.) to 118 (Oct.); Louis. & Nash. 145 (Jan.) to 92 (Oct.); N. Y. Cent. 134 (Jan.) to 96 (Oct.); New Haven 189 (Jan.) to 133 (Oct.); Pennsylvania 141 (Jan.) to 113 (Oct.); Pullman 181 (Jan.) to 137 (Oct.).

CHAPTER III

Possibilities of Profit in Conservative Investment Stocks

WHAT $2,500 would amount to in 1907 if invested in 1860 in the stocks given in the preceding chapter, selling and buying them again every three or four years is herewith shown in detail.

We start in 1861 with an original principal of $2,500 and the interest (we use only simple interest instead of compound interest) for 3½ years at 5% amounts to $438. The $2,500 we invest in the leading stocks of 1861 at their average low price (as given in the preceding chapter) of 40 and hold said stocks for said 3½ years until the average price reaches 160 in 1865, when we sell for $6,560 which, together with the interest above mentioned, makes a total of $6,998. We leave this amount on deposit in a bank for 2 years at 4% so that we have $7,569 to invest in 1867 when the average again fell to 100. We think that with this introduction the table is self-explanatory.

		$	$
Original Principal	1861		2,500
Simp. Int. 3½ yrs. @ 5% to	1865	438	
Prin. Bought @ 60-1861 sold @ 160	1865	6,560	
Prin. and Int.	1865		6,998
Comp. Int. @ 4% 2 yrs. P. & I.	1867		7,569
Simp. Int. 2 yrs. @ 5% to	1869	756	
Prin. Bought @ 100-1867 sold 160	1869	12,000	
Prin. and Int.	1869		12,756
Comp. Int. @ 4% 4 yrs. P. & I.	1873		14,920
Simp. Int. 1 yr. 5% to	1874	746	
Prin. Bought @ 75-1873 sold @ 110	1874	21,780	
Prin. and Int.	1874		22,526
Comp. Int. @ 4% 3½ yrs. P. & I.	1877		25,844
Simp. Int. 4 yrs. @ 5% to	1881	5,168	
Prin. Bought @ 50-1877 sold 140	1881	72,240	
Prin. and Int.	1881		77,408

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Prin. Bought @ 50-1877 sold 140	1881	72,240	
Prin. and Int.	1881		77,408

		$	$
Comp. Int. @ 4% 4 yrs. P. & I.	1885		90,554
Simp. Int. 4 yrs. @ 5% to	1889	18,108	
Prin. Bought @ 85-1885 sold 140	1889	149,100	
Prin. and Int.	1889		167,208
Comp. Int. @ 4% 1½yr. P. & I.	1891		177,373
Simp. Int. 1 yr. @ 5% to	1892	8,868	
Prin. Bought @ 95-1891 sold 140	1892	261,380	
Prin. and Int.	1892		270,248
Comp. Int. @ 4% 5yrs. P. & I.	1897		328,794
Simp. Int. 6 yrs. @ 5% to	1903	98,634	
Prin. Bought @ 100-1897 sold 200	1903	657,400	
Prin. and Int.	1903		756,034
Comp. Int. @ 4% 1 yr. P. & I.	1904		786,275
Simp. Int. 3 yrs. @ 5% to	1907	117,939	
Prin. Bought @ 150-1904 sold 230	1907	1,205,430	
Principal in 1907			1,323,369

In the above table 5% is allowed as an average dividend on the Stocks held and 4% an average interest on the Bank Deposits.

The preceding example shows that $5,000 conservatively invested in a few standard stocks about forty years ago would today amount to over $1,000,000. These not only are strictly investment stocks but also are stocks which have fluctuated comparatively little in price. This, moreover, was possible by giving orders to buy or sell only once in every three or four years.

If other stocks, which were not dividend payers and which have shown greater fluctuations, were purchased, and advantage had been taken of the intermediate fluctuations, the $5,000 would have amounted to much larger figures. By intermediate movements is not meant the weekly movements which the ordinary professional operator notes, but the broader movements extending over many months and possibly a year or more. These intermediate movements should not be noticed by a conservative investor, as it is possible to correctly diagnose only the major movements extending over three or four years. However, many brokers believe

that it is possible to discern also these intermediate movements of six or eight months and if so the following results would be possible:

$5,000 invested in "St. Paul" in 1870 would amount to over $10,000,000 today.

$5,000 invested in "Union Pacific" in 1870 would amount to over $15,000,000 today.

$5,000 invested in "Central of New Jersey" would amount to over $30,000,000 today.

$5,000 invested in "Northern Pacific" would amount to over $50,000,000 today.

These figures, moreover, are not based on the party selling at the top of every rise or buying at the bottom of every decline but give the purchaser only an average "high" and average "low." A conservative investor will not put all his eggs into one basket, especially in a speculative basket. for if one can build an investment of $5,000 up to $1,000,000 in about thirty years with little risk, he should be satisfied and not, for the sake of obtaining greater profits, assume additional risk.

ARITHMETICAL VS. GEOMETRICAL PROGRESSION

Not only is it possible to create a fortune through Conservative Investments,

but this is practically the only method which is safe and can be depended upon. This is owing to the fact that all other methods come under the head of "accumulation by arithmetical progression" rather than "accumulation by geometrical progression."

In order to build an investment of $5,000 up to $1,000,000 in thirty years by earning and saving, a man must accumulate about $25,000 a year or $100,000 continually every four years without a break. This is almost an impossibility so far as the average man is concerned and the feat is simply made greater or less in direct proportion to the amount. That is, to build up a fortune of $200,000 requires a laying aside of several thousand dollars every year in addition to allowing all interest to accumulate; and to build up a fortune of a few millions requires that you make IN YOUR BUSINESS more money each year than any one man who holds no stocks or bonds is making in his business today.

This can best be illustrated as follows:—If one has $1,000 invested in only ten shares of stock, it does not seem very wonderful for it to double in value in three or four years, enabling its sale

for $2,000 at a profit of $1,000. This is due to the fact that one is accustomed to the thought of handling $1,000; yet with $100,000 in the same stock, it would just as surely become $200,000. giving a profit of $100,000.

In other words, at the beginning there is little difference between "Arithmetical" and "Geometrical" Progression, as $1,000 added to $1,000 amounts to $2,000, the same as if multiplied by two. After accumulating $100,000 however it makes a tremendous difference whether one adds $1,000 making the amount $101,000 or multiplies said amount by two making the amount $200,000. It is for this reason, that it is not only possible to create a great fortune through conservative investments, BUT THAT THIS IS PROBABLY THE SAFEST WAY IT CAN BE ACCOMPLISHED.

A further illustration of the difference between "Arithmetical" and "Geometrical" Progression may be more striking, viz:

By Arithmetical Progression only about 150,000 DAYS have elapsed since Columbus discovered America and only about 1,000,000 HOURS have elapsed since George Washington was president of the United States.

By Geometrical Progression: $5,000 invested in Union Pacific stock in 1870 would today amount to $50,000,000 provided the holder once or twice a year sold his holdings or re-invested his money according to market conditions.

CHAPTER IV

An Example of Comparative Statistics for Determining What To Buy

IN studying a Railroad Security or when comparing one or more Securities, reference should be made first to the best printed Description of the same. In case no printed Descriptions are at hand they may be made up by using one of the following forms.

After studying the Description one must then refer to the Comparative Statistics relating to the company, which Statistics have three general uses:

A. Comparing one Issue with an Issue of another Company.

B. Comparing the Status of an Issue today with its Status ten years ago.

C. Comparing its Status with the Average Status of several similar Issues.

FORM OF BOND DESCRIPTION

Company, Mortgage, ...

Currency, rate, maturity, ...

.....

Interest Payable: .....

.....

Trustee: .....

Dated: ..... *Denomination*: Coupon, ...; Registered. .....

Form: .....

Authorized: ..... *Outstanding*: .....

.....

Optional .....

Convertible
Guaranteed .....

.....

Sinking Fund: .....

.....

The Unissued Bonds are reserved as follows: .....

.....

The Issued Bonds are secured by .....

.....

They are followed by .....

..... and other Securities.

The .....

owns over ..... miles of main and branch track, over ..... miles of other track, together with the necessary terminals and rolling-stock and operates in all addition

The property is controlled, through ownership of a majority of the stock, by .....

.....

The Fiscal Year ends and the earnings are reported

.....

The Issue was first publicly offered by .....

Listed in .....

FORM OF STOCK DESCRIPTION

.....Co. Stock or Shares, Par Value.....

*Common: Authorized:..... Outstanding:.....

Dividends:— Payable:.....

Ex-dividend about..... days before payable.

Meetings (last year).....

*Preferred: Authorized..... Outstanding:.....

Dividends:— Payable:.....

Ex-dividend about..... days before payable.

Meetings (last year).....

Range of years

Range of Prices { Com. ..... Pref. .....

.....

*Dividends { Com. ..... Pref. .....

.....

Registrar of Stock: .....

Transfer Agent: .....

Funded Debt ..... amounted to .....

The Assets to offset the above stocks and funded debt are as follows:—

1. By Direct Ownership: ..... miles of main and branch track, ... miles of other track, together with the necessary terminals, rolling-stock, etc.

2. By Lease: ..... miles of main and branch track.

3. By Stock Control: ..... miles of main and branch track.

4. By Trackage Agreement: ..... miles of main and branch track.

The property is controlled by .....

Fiscal Year ends .....

Annual Meeting is held the .....

Main Office: ..... New York Office: .....

Listed in ..... Reevisd .....

*See Daily Dividend Sheet for amounts listed, latest dividends declared, etc., with total for year to date, and the dividend basis.

A. COMPARING ONE ISSUE WITH AN ISSUE OF ANOTHER COMPANY

1. Make an analysis with "miles of main track owned" as a basis, viz:

CAPITALIZATION AND MILEAGE

	Road No. 1		Road No. 2	
	Total	Per Mile	Total	Per Mile
Main track upon which the issue being studied is a lien:				
Amount of said Issue outstanding:				
Prior Issues outstanding:				
Securities outstanding up to and including Issue being studied:				
Total Bonded Debt:				

(The above assumes that the road has no Rentals or Guarantees of any consequence which could come ahead of the Issue which is being studied nor has

y Equities, Stocks or Bonds which would serve as an asset for said Issue. If the Company has a small amount of such or if the Equities about offset the Rentals, then one may be considered as balancing the other and neither need be entered in the analysis. Otherwise they should be capitalized and considered as any prior Issue.)

EARNINGS AND INTEREST

	Road No. 1		Road No. 2	
	Total	Per Mile	Total	Per Mile
Gross:				
Net:				
Interest on Prior Issues:				
Balance for Interest on Issue studied:				
Rate per passenger per mile:				
Rate per ton per mile:				
Percent earned on Issue studied:				

	Road No. 1	Road No. 2
Ratio of Total Charges to said Balance:		
Factor of Safety:		

(The factor of Safety is 100 minus the percentage of the Fixed Charges to the Total Net Income available for Interest, Dividends and Improvements.)

MAINTENANCE AND IMPROVEMENTS

	Road No. 1		Road No. 2	
	Per Mile	Per Cent.*	Per Mile	Per Cent.*
Freight Density:				
Passenger Density:				
Maintenance of Way:				
Maintenance of Equipment:				

	Road No. 1		Road No. 2	
	Per Mile	Per Cent.*	Per Mile	Per Cent.*
Total Maintenance:				
Extraordinary Improvements not included in the above:				
Maintenance and Improvements per mile divided by the freight density per mile:				
Maintenance and Improvements per mile divided by the passenger density per mile:				
Revenue tons per train mile:				
Train miles required to perform the work:				

*Per cent. of Total Income.

2. Make an analysis with "Total miles of single track owned including side track, etc." as a basis, viz:

CAPITALIZATION AND MILEAGE

	Road No. 1		Road No. 2	
	Total	Per Mile	Total	Per Mile
Main track upon which the issue being studied is a lien:				
Amount of said Issue outstanding:				
Prior Issues outstanding:				
Securities outstanding up to and including Issue being studied:				
Total Bonded Debt:				

(The above assumes that the road has no Rentals nor Guarantees of any consequence which would come ahead of the Issue which is being studied, nor

has any Equities, Stocks or Bonds which would serve as an asset for said Issue. If the Company has a small amount of such or if the Equities about offset the Rentals, then one may be considered as balancing the other and neither be entered in the analysis. Otherwise they should be capitalized and considered as any prior Issue.)

EARNINGS AND INTEREST

	Road No. 1		Road No. 2	
	Total	Per Mile	Total	Per Mile
Gross:				
Net:				
Interest on Prior Issues:				
Balance for Interest on Issue studied:				
Rate per passenger per mile:				
Rate per ton per mile:				

	Road No. 1	Road No. 2
Percent earned on Issue studied:		
Ratio of Total Charges to said Balance:		
Factor of Safety:		

(The factor of Safety is 100 minus the percentage of the Fixed Charges to the Total Net Income available for Interest, Dividends and Improvements.)

MAINTENANCE AND IMPROVEMENTS

	Road No. 1		Road No. 2	
	Per Mile	Per Cent.*	Per Mile	Per Cent.*
Freight Density:				
Passenger Density:				
Maintenance of way:				
Maintenance of Equipment:				

	Road No. 1		Road No. 2	
	Per Mile	Per Cent.*	Per Mile	Per Cent.*
Total Maintenance:				
Extraordinary Improvements not included in the above:				
Maintenance and Improvements per mile divided by the freight density per mile:				
Maintenance and Improvements per mile divided by the passenger density per mile:				
Revenue tons per train mile:				
Train Miles required to perform the work:				

*Per cent. of Total Income.

After ascertaining the above figures, they may be studied to determine which Issue gives the better test. The yield of both Issues at current prices should be studied and, if a bond or other obligation, the maturity should also be studied together with other features mentioned in the Description. If there are no special distinctive features such as management, guarantees, equities or new capital requirements to make one Issue more or less attractive than the other, the Issue which makes the best showing in the above analysis should be the better Issue. If the yield is the same or better, then said Issue should also be the better purchase from an Investor's point of view.

Some statisticians omit the second analysis given above for the "total miles of single track owned" and instead ascertain, for each company, The Percentage of "other tracks" to the "miles of main track." Other factors being equal, the company showing the greater percentage is in a much stronger position for economical operation.

This Percentage usually varies from 20% in the case of Western and Southern roads to 60% in the case of New England roads and 100% in the case of

New York, Pennsylvania and New Jersey roads.

B. COMPARING THE STATUS OF AN ISSUE TODAY WITH ITS STATUS TEN YEARS AGO

The Statisticians, however, now study the selected Issue by itself and ascertain if the Company is progressing in the proper direction; for possibly neither Issue is a safe purchase. To do this they proceed as follows:

1. Examine the Gross Earnings per mile for a given period of years to ascertain if the road has shown a steady and healthy increase and the Percentage of Increase.

2. Examine the Net Earnings per mile for the same period of years and ascertain if said Net Earnings have shown a steady increase and the Percentage of Increase.

3. Examine the Surplus per mile for the same period of years and ascertain if this likewise has shown a steady increase and Percentage of Increase.

4. Examine for the same period the Maintenance Charges per mile (as included in the Operating Expenses) and ascertain if these Charges have increased

in proportion to the traffic. In other words, ascertain if the company continues to appropriate as large a percentage of their Total Gross to Maintenance, whatever the Total Gross.

If there has been a healthy increase for a period of from seven to ten years in the above four items and if the Percentage of Increase for all four items has been approximately the same, you may be satisfied, provided no other feature has entered or is about to enter, that the company is progressing satisfactorily.

The remaining question to decide is whether or not the Factor of Safety, for the Issue which you are studying, is sufficient. This Factor of Safety runs from 75% in the case of the Great Northern Bonds to 10% in the case of the Wheeling and Lake Erie Bonds. A conservative Bond Issue should show a Factor of 50% and a fairly safe Issue a Factor of 25%. As to whether this Factor of Safety should be 25% or 50%, depends upon the character of traffic. The stability of income is dependent upon the character of the traffic and a Boston & Maine Railroad Issue is safe with a very much smaller Factor of Safety than an Issue of the Atchison, Topeka & Santa

Fe Railroad Company. Therefore, in determining the Factor of Safety note the character of the Traffic and whether or not earnings will be seriously affected by conditions.

If there has not been a healthy increase in all of the four items or if the Percentage of Increase of one of the latter has been considerably less than the Percentage of Increase in Gross, then further study should be made. If the Percentage of Maintenance has been reduced to allow the Net to show an increase, or if the Percentage of Surplus has been reduced owing to increased Fixed Charges, then the growth would not generally be considered as satisfactory.

If both Maintenance Charges and Surplus show decidedly smaller Percentages of Increase in proportion to the Gross, (due to increased Conducting Transportation and General Expenses or increased Fixed Charges) then the Company surely is not progressing in the right direction and unless the Factor of Safety is very large, the Issue studied should not be purchased.

C. COMPARING THE STATUS WITH THE AVERAGE STATUS OF SEVERAL SIMILAR ISSUES

The above two methods are the forms used by the leading Statisticians in studying railroad Issues. There is, however, another form which we will briefly describe. This other form is sometimes used in conjunction with the two above mentioned as a sort of general check, but usually is used only for quick reference and in place of the other two. In other words a Statistician usually has the following figures in his mind and when called upon for hasty decision as to any Issue, can, with the use of the following figures, give a hasty answer with only a few moments of figuring. In other words, this last method requires the least work to apply but likewise is the least satisfactory.

The principle involved is to ascertain the Average Figures for the various groups of roads and to compare the figures of a given road with said Average Figures for the group to which it belongs. The following figures are generally used.

Gross Earnings: $10,000 per mile and upwards according to the location of the property.

Available Net Earnings: $3,000 and upwards according to the location of the property.

Surplus Earnings: $1,000 and upwards according to the location of the property.

Maintenance of Way: $1,200 and upwards according to the density of the traffic.

Maintenance of Equipment: $1,400 and upwards according to the density of traffic.

$1,800 to $2,000 per locomotive per year.

$60 to $70 per freight car per year.

$600 to $700 per passenger car per year.

Maintenance Charges 25% to 30% of Gross.

Conducting Transportation 30% to 40% of Gross.

Fixed Charges 15%.

Factor of Safety 30%, more or less, according to the Character of traffic.

The Appropriation of Gross Earnings in Percentage as averaged for 25 railroads usually shows as follows:

Maintenance Charges 30%
Conducting Transportation and General Expenses 31%

Rentals and Fixed Charges	21%
Surplus Available for Dividends ..	18%
	100%

When a Statistician selects a number of similarly located and successful roads in a given territory and actually ascertains the Average (per mile) Figures for said Group, adjusted in accordance to the density, we believe that this test is helpful and fairly satisfactory. We, however, do not believe in using simply the above arbitrary figures or even proportionate figures for comparison purposes and for that reason will make no further comments or give any further instructions relative to this method.

In grouping roads the following system is usually used.

NAME	Average Passengers over each mile Annually	Average Tons over each mile Annually	Average Gross Earnings
Group 1 (New England States.)	225,000	430,000	$10,000
Group 2 (New York and vicinity.)	150,000	1,500,000	14,000
Group 3 (Chicago and vicinity.)	60,000	425,000	6,000
Group 4 (Southeastern States.)	60,000	500,000	6,000
Group 5 (Southwestern States.)	65,000	400,000	6,000
Group 6 (Western Group.)	65,000	600,000	7,000

More accurate results may be obtained by the following grouping as to States:

1. EASTERN GROUP: New England States.

2. MIDDLE GROUP: New York, New Jersey, Pennsylvania, Delaware and Maryland.

3. CENTRAL NORTHERN GROUP: Ohio, Indiana, Illinois and Michigan.

4. SOUTH ATLANTIC GROUP: Virginia, West Virginia, North and South Carolina, Georgia and Florida.

5. MISSISSIPPI VALLEY GROUP: Alabama, Mississippi, Louisiana, Kentucky and Tennessee.

6. SOUTHWESTERN GROUP: Missouri, Arkansas, Texas, Kansas, Colorado, New Mexico and Oklahoma.

7. NORTHWESTERN GROUP: Iowa, Minnesota, Nebraska, North and South Dakota, Wyoming and Montana.

8. PACIFIC GROUP: Washington, Oregon, California, Nevada, Idaho, Utah and Arizona.

CHAPTER V

An Example of Fundamental Statistics for Determining When To Buy

IN studying Industrial Conditions or when comparing one or more Periods, the use of Comparative Statistics is of little value and one must resort to Fundamental Statistics. The course usually pursued by the leading Statisticians when employing Fundamental Statistics is as follows:

Firstly: They must collect data which enables them to give Total and Per Capita figures covering from 1901 to the last completed year inclusive for each of the following twenty-five Subjects. To collect these figures is at first a tremendous task but it is possible if a Firm is willing to spend the money necessary therefor.

Secondly: Such Statisticians then divide the figures for the past few years into months or other periods. This is for the purpose of estimating what the actual figures for the current year will be when the current year is but partly over.

Thirdly: They then obtain an average rate of increase in population and an average rate of increase in circulation and wealth. These averages are for estimating what should be the normal figure for the current year.

Fourthly: Considering the average growth in population and in wealth an estimate is then made of what the normal figures should be for the current year. Considering the statistics already reported and the period which they cover, a final estimate is made of what the actual figures will be for the current year.

The following are the twenty-five Subjects which must be studied:—

1. The Money in Circulation in the United States.
   Actual Totals for 1901 1902 1903.....to current year.
   Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

2. The Wealth of the Inhabitants of the United States based on the value of the Real and Personal Property.
   Actual Totals for 1901 1902 1903.....to current year.
   Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

3. The Transactions in Shares on the New York Stock Exchange.
   Actual Totals for 1901 1902 1903.....to current year.
   Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

4. The New Securities listed including both Stocks and Bonds on the New York Stock Exchange.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

5. The Mileage, Capital Stock, Bonded Debt and Total Obligations of the Railroads of the United States.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

6. The Gross Earnings and the Net Earnings per mile of the Railroads of the United States which report monthly.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

7. The Interest Charges and the Dividends paid by the Railroads of the United States.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

8. The Passenger, Freight and Density figures per mile of the leading Railroads.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

9. The Total Bank Clearings of the United States.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

10. The Total Bank Clearings of the United States with the exception of New York.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

11. Imports of Merchandise into the United States.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

12. Exports of Merchandise from the United States.

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

13. **The Balance of Trade.**

Actual Totals for 1901	1902	1903.....	to current year.		
Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.		

14. **The Imports of Gold into the United States.**

Actual Totals for 1901	1902	1903.....	to current year.		
Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.		

15. **The Exports of Gold from the United States.**

Actual Totals for 1901	1902	1903.....	to current year.		
Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.		

16. **The Balance of Gold Movements.**

Actual Totals for 1901	1902	1903.....	to current year.		
Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.		

17. The Production of the leading Commodities, such as Wheat, Corn, Cotton, Steel, Iron, Copper, Wool, Petroleum, etc., including a very careful estimate of the Crops.*

Actual Totals for 1901	1902	1903.....to current year.		
Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.	

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*Crop statistics when given by States are valuable for use as Comparative Statistics. By comparing the estimates of the crops, in the States through which a given Railroad operates, for the current year with the corresponding figures for previous years, one can in the case of many Western roads readily anticipate an increase or decrease in earnings. For this reason all crop estimates and reports should be itemized as to States and the comparisons for a number of years should also be itemized as to States.

18. The Prices of the leading Commodities such as Wheat, Corn, Cotton, Steel, Iron, Copper, Wool, Petroleum, etc.

Actual Totals for 1901 1902 1903.....to current year.
Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

19. Business Failures both in number and amount.

Actual Totals for 1901 1902 1903.....to current year.
Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

20. The Ratio of the Bank Loans to the Bank Resources.

Actual Totals for 1901 1902 1903.....to current year.
Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

21. The Ratio of the Bank Loans and Investments to the Bank Resources.
Actual Totals for 1901 1902 1903.....to current year.
Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

22. The Ratio of the Cash in the Banks to the Deposits.
Actual Totals for 1901 1902 1903.....to current year.
Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

23. The Ratio of the Cash in the Banks to the Resources.
Actual Totals for 1901 1902 1903.....to current year.
Date of Est. Figures Avail. % of Year. 1st Est. for Current Year. Final Est. for Current Year.

24. **Fire and other losses throughout the United States.**

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

25. **Total laborers employed multiplied by the average wage.**

Actual Totals for 1901 1902 1903.....to current year.

Date of Est. Figures Avail.	% of Year.	1st Est. for Current Year.	Final Est. for Current Year.

The above data may seem complicated at first sight but such is not the case. If obtained by each Firm individually this data represents a large amount of work but, as it may be obtained through a Central Agency, this work is eliminated for the Individual Firms. The Firm's efforts may be devoted to interpreting the Increase after the Figures are collected and arranged in comparison with the Normal and Actual Figures for the current year. If the estimate of the Actual Figures is practically the same as the estimate of the Normal, this is a sign that there will be no immediate change in Industrial conditions. If the estimate of the Actual is more favorable than the estimate of the Normal then more prosperous conditions are indicated. If the estimate of the Actual is less favorable than the estimate of the Normal, then less prosperous conditions are indicated. "More favorable" may sometimes, as in the case of crops, mean an increase, and at other times, in case of failures, mean a decrease.

These changes, however, are readily interpreted. The principal work consists in the arranging of the totals and in making the estimates. When this has been done, the conditions and the trend

of conditions are very apparent. In fact, it may be plainly seen whether conditions are to remain as they are or whether a Period of Depression or a Period of Prosperity is due. This is the knowledge that is used by the great Banking Houses of the old world in building up fortunes and it is these Fundamental Statistics that are at the bottom of all great Stock Market Movements.

CHAPTER VI

A Talk on Coppers

THE laws of trade and finance absolutely compel a fluctuation in the price of staple commodities. The tendency of the price of steel, cotton, copper and most other staple productions is generally upward. This is owing to several reasons, among which may be mentioned the increased supply of gold, the increased price of labor and the increased consuming power of the people. In other words, there is a constant increase in demand which the increase in supply does not fully equal. On the other hand, if we plot this line, it will not be a straight line but will be a zig-zag line first upward then downward, with the low points usually not so low as the preceding low points, and with the high points usually a little higher than the preceding high points. A careful study will further show that these abrupt changes occur at intervals of every few years and are as certain to come as is the summer and the winter. We might

give many reasons to prove this latter statement, but we will confine ourselves to one reason; namely, that if any one commodity continued to always increase in price without the fluctuation above mentioned, the tendency would be for every one to enter the business of manufacturing, selling or investing in said one commodity.

Of course there is a great difference in the fluctuation of different commodities and some commodities fluctuate much more than others. Moreover it is much more difficult to anticipate the laws affecting the fluctuation of some commodities than the laws affecting other commodities. As the general average and condition of all commodities fluctuate and the country passes from periods of prosperity to periods of depression, so the New York Stock Market as a whole fluctuates. This is clearly shown by the preceding tables. Although the Stock Market generally anticipates a period of business prosperity or of business depression, yet with sufficient data it is likewise possible for large Banking Interests to anticipate said periods. This is the principle upon which many people base their investments and rapidly and with very little

risk, accumulate great fortunes. In other words, in times of great depression they purchase standard dividend paying securities (not being especially particular as to what securities so long as they are good) and hold these securities for a few years or until prosperity abounds and then they sell them. After selling them, they deposit the money in some bank, loan it to bankers or purchase with it high grade bonds and thus rest content with simple interest until another period of depression comes, when they again use this money for the purchase of the same securities which they sold a few years before. By such a method money is doubled or trebled every eight or ten years. This, moreover, applies to the small investor as well as to the great families, such as the Rothschilds. It is said that one with $5,000 can with perfect safety multiply it to over $100,000 in a period of twenty years, provided he complies with the necessary requirement.

This necessary requirement is the willingness to spend money in obtaining the necessary statistics to enable one to discern conditions. Like the farmer, one must first be willing to purchase the seed and apparently "throw the

same away" in the ground, before reaping a harvest. The majority of investors have not the patience to spend money FOR PERHAPS SIX OR EIGHT YEARS in simply obtaining data and waiting, seeing no direct results. Moreover, there is another class of investors who even knowing the conditions have not the self-control to use said knowledge. In other words, there are a great many people who, knowing that the market must be lower in a year or so, have not the self-control to wait a year before investing a given amount of money. Money "burns in their pockets" and, as soon as they accumulate a certain amount, they seem determined to invest it, even though they know that if they will place it in a bank on deposit for a while, they can obtain the same securities for one-third of the price. The same class of people have not the self-control and energy necessary to sell said securities in times of great prosperity.

To those, however, who are willing to spend the money in accumulating the necessary data and who have the self-control to act in accordance with their better judgment, the opportunities to make money are unlimited. Such per-

sons can, moreover, confine themselves to absolute and outright cash purchases and also invest in only the most conservative Industrials.

We cannot here study the application of the above theory to all classes of Industrials, therefore as an illustration will consider but one; namely, that of purchasing and selling high grade standard dividend paying Copper Stocks in accordance with the market price of copper. In other words, instead of endeavoring to explain a system for keeping in touch with all commodities and for purchasing Steel Stocks, Cotton Mill Stocks, and other Industrial Securities, WE CONFINE OURSELVES TO ONE SIMPLE COMMODITY known as Copper, and study the purchase of Copper Stocks dependent largely upon the price of said commodity. This means two things:—First; that one must keep in constant touch with the price of Copper, and secondly; that one must always keep informed of the best mines, realizing that the low points and the high points change from one year to another. Therefore it is impossible for a broker to give a rule such as—that you should sell Copper Stocks when the price of metal is above 24c and buy Copper Stocks when the

price of metal is below 14c, as one year 24c may be high and another year it may not be high. Moreover, although we can tell you what are safe stocks today, these same stocks may not be best for you to invest in in a few years from now. It, therefore, is necessary to retain some statistician or some firm to supply statistics for aid on these points. We wish that we could recommend to you all News Agencies for this information, but for reasons which you can readily understand, it is impossible for them always to state the facts, especially when conditions look unfavorable.

The general method of procedure is as follows:—One can best obtain an idea as to whether the present price is high or low by a study of the annexed tables, showing the high and low prices of the metal over a long period of years. The greatest difficulty will come in selecting a list of mines in which to invest. The following table gives fifteen dividend paying copper mines and the rate of dividend and what we believe to be their average maximum rate of dividend. This maximum rate of dividend is based on copper at 24c a pound and we therefore show what the companies would theoretically earn with copper at 18c a

pound and under. These figures are of course not exact as they are based on the assumption that the cost per pound will be constant, whatever the output, when in reality the smaller the output, the greater the cost per pound.* You therefore may take these figures as maximum figures throughout.

*This is not always true as the price of labor generally decreases as the output decreases.

	Maximum Div. Rate	18c	17c	16c	15c	14c
Cal. & Hec.	$80	$98.53	$88.42	$78.32	$68.21	$58.10
Cal. & Ari.	20	23.42	21.05	19.67	17.70	15.92
Wolverine	20	18.56	16.94	15.33	13.71	12.10
Granby	12	14.23	12.77	11.31	9.85	8.39
Osceola	14	15.46	13.53	11.60	9.67	7.74
Amalgamated	8	12.37	10.92	9.46	8.01	6.55
Utah Con.	6	8.03	7.41	6.79	6.17	5.56
No. Butte	8	8.63	7.81	6.98	6.16	5.34
Quincy	18	12.09	10.36	8.64	6.91	5.18
Cop. Range	8	7.60	6.75	5.91	5.07	4.23
Mohawk	10	6.99	6.05	5.12	4.18	3.25
Anaconda	7	6.33	5.54	4.75	3.95	3.17
Butte Coal	2	2.00	1.75	1.50	1.25	1.00
Shannon	2	2.00	1.59	1.20	.80	.40
Tamarack	8	9.33	7.00	4.66	2.33	.00

Such tables are compiled by taking the present output of the mine and its net cost per pound* of the ore mined. The compiler then deducts this cost per pound from the selling price given in the table and ascertains the profit per pound. He then multiplies the profit per pound by the output and divides by the number of shares outstanding. There is another factor, however, which enters; namely, that as the price declines the production decreases and therefore with a price of 14c probably only three-fifths as much Copper is mined as at a price of 24c, and therefore one should correspondingly cut down the figures in the above table. As the output of each mine can be obtained without difficulty, one can at any time ascertain the relation of the actual output to the maximum output and reduce the figures in the above table accordingly. In a broad way, the high cost producing mine suffers relatively the most by a decline in the metal market although, of course, in the matter of a loss in share earnings, the capitalization must also be taken into ac-

*The present cost, for instance, to Amalgamated is 10 cents; to Anaconda 12 cents; to Calumet & Arizona 7 cents; to North Butte 9 cents.

count. For instance, take two extremes Utah Consolidated and Tamarack. The former has 300,000 shares and makes its Copper for 4.1 cents per pound. The latter has only 60,000 shares and makes its Copper for 14 cents per pound. With the price of the metal at 15 cents instead of 26 cents the profits of the Utah Consolidated would be cut in half, or from $13.46 per share to $6.68. Tamarack's share profits would be only one-sixth what they would be at 26 cents and would drop from $34.00 to $5.33. A fluctuation of one cent in the price of Copper means a difference of 62 cents per share in the profits of Utah and a difference of $2.33 per share to Tamarack. In the same manner a one-cent drop in Copper would shrink the profits of Anaconda 83 cents per share, Copper Range 85 cents, North Butte 95 cents, Amalgamated $1.35. Of course after reaching this point it is possible to go a step further by ascertaining the per cent. earned on the selling price, as well as the per cent. earned on the par value which is ascertained by the above method.

The above reasoning results in the following rules for practical investing:

1. Make a list of the standard divi-

dend paying stocks of companies which issue complete reports.

2. Star on said list the names of such companies as are doing a sufficient amount of development work and which are good for a long period of years.

3. Select the stock from among those which are starred that, WITH COPPER AT A LOW PRICE, will show the greatest per cent. earned on the selling price of the stock. The result of such an analysis clearly shows which is the best one stock to purchase. If there are four or five which figure out approximately the same, it is best for an investor to divide up his money among these several. After obtaining this data the secret of successful investing depends simply on purchasing these stocks when Copper is at a low figure (approximately equal to or less than what it costs the average mine to produce it) and to keep these stocks for from one to eight years when Copper will sell at a high point, at which time one should sell said stocks. This, together with the dividends received enables some to treble their money. When Copper is selling at a high point and the stocks have been sold, the money should then be deposited in a good bank or invested in high grade bonds from one to

eight years or until the price of the metal again goes to the low point. These same or other standard stocks can then again be purchased and one can again sell at a profit. There is not much risk in such a method if properly followed and there is no reason why any man with self-control cannot turn an original investment of from $2,000 to $5,000 into $50,000 or $100,000 within about twenty years, provided he is willing to spend a sufficient amount each year on Statistics.

In ascertaining the cost of production, three factors must be considered:

1. The pounds of copper per ton of rock crushed.

2. The cost of supplies, labor, etc., including taxes and all fixed charges.

3. The money spent on development works, new machinery, etc.

The first factor is the most important for comparison purposes and we herewith give a list of the leading mines with the Average Tons of Rock Stamped Daily, the Pounds of Copper per Ton of Rock, and the Percentage of Copper.

The second factor is more or less constant with each mine but the third factor is very different with different mines. This third factor is important but it is

difficult to obtain satisfactory information excepting for the more conservative properties.

The theory advanced in this chapter is based on the assumption that the mines invested in will hold out and that no unforseen event will make the working of these mines unprofitable. We refer to the discovery of much richer and greater mines in other countries or to the manufacture of some other substance which may supersede copper in the industrial world.

Neither of these assumptions need be considered when investing in conservative railroad stocks, as railroads will always be of value both for their tangible assets and for their earning capacity. Therefore, for an investment, we believe that railroads are much preferable to coppers, although the latter are often profitable for speculative purposes.

TABLES

Pounds of Copper per Ton

	Tns rk stpd. daily	Lbs cop tn rock	%cop in rock
Calumet	7,300	44.8	2.24
Wolverine	1,200	30.	1.5
Champion	2,400	26.	1.3
Tamarack	1,560	25.	1.25
Baltic	2,300	22.4	1.12
Osceola	2,700	18.	.9
Michigan	540	18.	.9
Trimountain	1,800	17.6	.88
Ahmeek	1,400	17.14	.857
Winona	320	17.	.85
Quincy	4,100	16.	.8
Isle Royale	500	16.	.8
Mohawk	1,800	16.	.8
Mass.	560	14.8	.74
Centennial	700	13.4	.667
Allouez	750	13.3	.665
Victoria	300	13.2	.66
Franklin	1,450	12.4	.62
Adventure	340	12.	.6

Table of Profits for Ten Leading Stocks

This table shows how the profits are figured when copper is 13 cents per pound. The same method may be used when it is selling at any other price.

	Shares outstanding	Walker's estimate of 1907 output in lbs.	Lbs. per share	Cost of product per lb.	Profit per lb. on 13c copper	Profit per sh'e on 13c copper
Calumet & Hecla	100,000	90,000,000	900	9	4	36.00
Calumet & Arizona...	200,000	37,000,000	185	7	6	11.10
Wolverine	60,000	9,500,000	158	6	7	11.08
Granby	135,000	30,000,000	222	8.5	4.5	10.00
Osceola	96,150	20,000,000	208	11	2	4.15
Amalgamated	1,550,000	230,000,000	148	10	3	4.45
Utah Consolidated	300,000	18,000,000	60	7	6	3.60
North Butte	400,000	36,000,000	90	9	4	3.60
Quincy	110,000	20,000,000	182	11	2	3.64
Copper Range	385,000	40,000,000	104	9	4	4.15
Mohawk	100,000	12,500,000	125	9.5	3.5	4.37

NOTE:—The above table may be carried further by dividing the "profits per share" by the "market price per share."

Table Showing Range in Price of Copper Since 1860

		Highest			Lowest	
Year	Av	Price	Month		Price	Month
1860	22	24.0	(Jan)	to	19.7	(Dec)
1861	22	27.0	(Dec)	to	17.5	(Jul)
1862	21	32.8	(Nov)	to	20.7	(May)
1863	33	38.7	(Dec)	to	29.0	(Jul)
1864	47	55.0	(Jul)	to	39.0	(Jan)
1865	39	50.5	(Jan)	to	28.0	(Jul)
1866	34	42.0	(Jan)	to	26.5	(Nov)
1867	25	29.2	(Jan)	to	21.5	(Dec)
1868	23	24.5	(Dec)	to	21.5	(Jan)
1869	24	27.0	(Feb)	to	21.5	(Dec)
1870	21	23.3	(Nov)	to	19.0	(Mch)
1871	24	27.0	(Dec)	to	21.2	(Apr)
1872	35	44.0	(Apr)	to	27.1	(Jan)
1873	28	35.0	(Jan)	to	21.0	(Nov)
1874	22	25.0	(Jan)	to	19.0	(Aug)
1875	22	23.8	(Sep)	to	21.5	(Jan)
1876	21	23.2	(Jan)	to	18.7	(Aug)
1877	19	20.5	(Feb)	to	17.5	(Dec)
1878	16	17.6	(Jan)	to	15.5	(Oct)
1879	18	21.7	(Nov)	to	15.5	(Jan)
1880	21	25.0	(Jan)	to	17.8	(Jun)
1881	18	20.3	(Dec)	to	16.0	(Jul)
1882	19	20.3	(Jan)	to	17.8	(Apr)
1883	16	18.1	(Jan)	to	14.8	(Nov)
1884	13	15.0	(Dec)	to	11.0	(Dec)

		Highest			Lowest	
Year	Av	Price	Month		Price	Month
1885	10	11.8	(Feb)	to	9.8	(May)
1886	11	12.1	(Dec)	to	10.0	(May)
1887	13	17.7	(Dec)	to	9.9	(May)
1888	16	17.6	(Nov)	to	15.8	(Jan)
1889	13	17.5	(Jan)	to	11.0	(Sep)
1890	15	17.2	(Jul)	to	14.0	(Mch)
1891	12	15.0	(Jan)	to	10.2	(Dec)
1892	11	12.3	(Dec)	to	10.5	(Feb)
1893	10	12.5	(Jan)	to	9.6	(Aug)
1894	9	10.2	(Jan)	to	9.0	(Jun)
1895	10	12.2	(Aug)	to	9.3	(Apr)
1896	10	12.0	(Jun)	to	9.7	(Jan)
1897	11	12.0	(Jan)	to	10.7	(Nov)
1898	12	13.2	(Dec)	to	11.0	(Jan)
1899	17	19.3	(Apr)	to	13.2	(Jan)
1900	16	17.2	(Apr)	to	16.0	(Feb)
1901	16	17.0	(Jan)	to	13.0	(Dec)
1902	12	13.5	(Feb)	to	11.0	(Jan)
1903	13	15.3	(Mch)	to	12.0	(Dec)
1904	13	15.3	(Nov)	to	12.2	(Feb)
1905	15	18.8	(Dec)	to	15.0	(May)
1906	22	25.0	(Dec)	to	18.0	(Sep)

Table Showing Range in Prices of Stocks Since 1889

The prices of the leading copper stocks since 1889 have ranged as follows:

1890 AVERAGE 56-87

Osceola ranged from 45 (Sept.) to 32 (Dec.); Quincy 130 (Sept.) to 80 (Nov.).

1891 AVERAGE 55-76

Osceola ranged from 40 (June) to 26 (Nov.); Quincy 85 (Feb.) to 112 (Aug.).

1892 AVERAGE 82-91

Osceola ranged from 24 (Jan.) to 38 (Nov.); Quincy 140 (Dec.) to 145 (Dec.).

1893 AVERAGE 65-89

Osceola ranged from 36 (Jan.) to 25 (Aug.); Quincy 143 (Jan.) to 105 (Aug.).

1894 AVERAGE 50-76

Osceola ranged from 28 (Apr.) to 19 (July); Quincy 125 (Jan.) to 81 (July).

1895 AVERAGE 41-74

Osceola ranged from 42 (July) to 20 (Dec.); Quincy 102 (Mch.) to 170 (July); Wolverine 10 (July) to 3 (Dec.).

1896 AVERAGE 43-58

Osceola ranged from 21 (July) to 32 (Nov.); Quincy 134 (Feb.) to 104 (Aug.); Wolverine 6 (Jan.) to 10 (Nov.).

1897 AVERAGE 47-63

Osceola ranged from 28 (Apr.) to 42 (Sept.); Quincy 129 (Jan.) to 104 (Mch.); Wolverine 9 (Apr.) to 19 (Sept.).

1898 AVERAGE 53-91

Osceola ranged from 38 (Mch.) to 87 (Dec.); Quincy 105 (Mch.) to 150 (Dec.); Wolverine 18 (Mch.) to 38 (Dec.).

1899 AVERAGE 51-87

Mohawk ranged from 38 (Apr.) to 14 (Dec.); Osceola 105 (Feb.) to 61 (Dec.); Quincy 190 (Jan.) to 125 (Dec.); Utah Cons. 53 (Apr.) to 21 (Dec.); Wolverine 50 (Jan.) to 35 (Dec.).

1900 AVERAGE 57-78

Amalgamated ranged from 83 (Jan.) to 100 (Nov.); Mohawk 12 (June) to 28 (Dec.); Osceola 58 (June) to 80 (Nov.); Quincy 132 (July) to 178 (Sept.); Utah Cons. 38 (Apr.) to 22 (June); Wolverine 36 (June) to 49 (Dec.).

1901 AVERAGE 57-99

Amalgamated ranged from 130 (June) to 61 (Dec.); Mohawk 22 (Jan.) to 56 (Sept.); Osceola 120 (Sept.) to 72 (Dec.); Quincy 180 (Apr.) to 125 (Dec.); Utah Cons. 38 (Nov.) to 19 (Dec.); Wolverine 74 (Sept.) to 44 (Dec.).

1902 AVERAGE 47-74

Amalgamated ranged from 79 (Feb.) to 53 (Nov.); Copper Range 44 (Mch.) to 65 (Oct.); Mohawk 27 (Jan.) to 49 (Sept.); Osceola 90 (Feb.) to 48 (Nov.); Quincy 147 (Feb.) to 100 (Nov.); Utah Cons. 27 (Feb.) to 19 (July); Wolverine 42 (Jan.) to 65 (Dec.).

1903 AVERAGE 42-71

Amalgamated ranged from 76 (Mch.) to 34 (Oct.); Copper Range 75 (Feb.) to 37 (July); Granby 53 (Apr.) to 36 (July); Mohawk 58 (Feb.) to 31 (July); Osceola 79 (Feb.) to 44 (July); Quincy 127 (Feb.) to 80 (Oct.); Utah Cons. 22 (Jan.) to 34 (May); Wolverine 75 (Mch.) to 54 (July).

1904 AVERAGE 46-81

Amalgamated ranged from 43 (Feb.) to 83 (Dec.); Copper Range 38 (Feb.)

to 75 (Nov.); Granby 25 (Mch.) to 58 (Nov.); Mohawk 34 (Feb.) to 58 (Nov.); Osceola 53 (Feb.) to 98 (Nov.); Quincy 80 (Feb.) to 125 (Nov.); Utah Cons. 30 (Jan.) to 47 (Nov.); Wolverine 68 (Jan.) to 110 (Nov.).

1905 AVERAGE 64-98

Amalgamated ranged from 70 (Jan.) to 112 (Dec.); Copper Range 64 (Jan.) to 85 (Dec.); Granby 50 (Jan.) to 105 (Dec.); North Butte 34 (Aug.) to 93 (Dec.); Mohawk 48 (May) to 65 (Dec.); Osceola 88 (Feb.) to 115 (Oct.); Quincy 118 (Jan.) to 95 (May); Utah Cons. 39 (Mch.) to 59 (Nov.); Wolverine 105 (Jan.) to 135 (Dec.).

1906 AVERAGE 73-127

Amalgamated ranged from 118 (Feb.) to 92 (July); Copper Range 87 (Jan.) to 67 (July); Granby 80 (July) to 152 (Oct.); North Butte 75 (Mch.) to 118 (Oct.); Calumet & Arizona 107 to 185; Mohawk 55 (Mch.) to 85 (Dec.); Osceola 93 (Mch.) to 151 (Dec.); Quincy 114 (Jan.) to 80 (July); Utah Cons. 70 (Jan.) to 52 (June); Wolverine 131 (Jan.) to 190 (Dec.).

1907 to Nov. 1. AVERAGE 64-140

Amalgamated ranged from 122 (Jan.) to 42 (Oct.); Copper Range 105 (Jan.) to 55 (Oct.); Granby 152 (Feb.) to 60 (Oct.); North Butte 120 (Jan.) to 43 (Oct.); Calumet & Arizona 198 (Feb.) to 98 (Oct.); Mohawk 97 (Jan.) to 47 (Oct.); Osceola 181 (Feb.) to 87 (Sept.); Quincy 148 (Feb.) to 75 (Sept.); Utah Cons. 79 (Jan.) to 33 (Oct.); Wolverine 200 (Jan.) to 109 (Oct.).

FINAL WORD TO READERS

Upon reading the final proofs of this little book, it occurs to us that the book may possibly be the means of causing some persons to invest in stocks who will not give the proper attention to statistics and general conditions. We therefore advise all readers that, if you are unwilling to invest the required time and money in collecting and studying the necessary statistical data, that you buy no stocks whatsoever, but confine your investments strictly to high grade bonds recommended by conservative bond dealers.

One other thing,—whether you buy stocks or bonds do not be in a hurry to make money too fast. Let your principal grow slowly and naturally. Be willing to creep before walking and be willing to walk before running. Remember that you have many years in which to accomplish the desired object and that your success depends very largely upon progressing slowly and very carefully during the first few years.

CHAPTER VII

Personal Records

The following tables will be of service for keeping informed regarding Railroad Securities purchased. If another table is desired designed especially for Copper Stocks, the following items should be included:

Year Covered:

Production in Pounds:

Cost per Pound:

Average Price Received:

Profits per Pound:

Shares Outstanding:

% Earned per Share:

% of Gross Appropriated for Development.

Name of Company *Fiscal Year Ends*

Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

Name of Company *Fiscal Year Ends*

Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

Name of Company *Fiscal Year Ends*

Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

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Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

Name of Company *Fiscal Year Ends*

Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

Name of Company *Fiscal Year Ends*

Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

Name of Company *Fiscal Year Ends*

Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

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Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
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					M.	T.	C.	S.	

Name of Company *Fiscal Year Ends*

Total Shares Outstanding *Amt. Bonds Outstanding*

Year	Miles	Gross Earnings	Surplus For Dividends	% Earned on Stock	Appro. of Gross				Train Load
					M.	T.	C.	S.	

Name of Security.....

PURCHASES AND SALES

Date	Amt.	Price	Broker & how Register'd	Balance

QUARTERLY QUOTATIONS

Year	Jan.	April	July	Oct.	Av'rage

Name of Security.....

PURCHASES AND SALES

Date	Amt.	Price	Broker & how Register'd	Balance

QUARTERLY QUOTATIONS

Year	Jan.	April	July	Oct.	Av'rage

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Year	Jan.	April	July	Oct.	Av'rage

Name of Security.....

PURCHASES AND SALES

Date	Amt.	Price	Broker & how Register'd	Balance

QUARTERLY QUOTATIONS

Year	Jan.	April	July	Oct.	Av'rage

Dividends and Interest Due.....

Name of Security	Rate	When and Where Payable

Dividends and Interest Due.....

Name of Security	Rate	When and Where Payable

Dividends and Interest Due.....

Name of Security	Rate	When and Where Payable

Dividends and Interest Due.....

Name of Security	Rate	When and Where Payable

Dividends and Interest Due.....

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Dividends and Interest Due

Name of Security	Rate	When and Where Payable

Dividends and Interest Due.....

Name of Security	Rate	When and Where Payable

Dividends and Interest Due

Name of Security	Rate	When and Where Payable

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